

WE CLAIM:

1. A process for reactivating ash for feeding to a combustor so that said reactivated ash may be used as a sulphur absorbing agent, said process comprising:
- 5 i) obtaining a quantity of ash to be activated;
ii) obtaining a quantity of water;
iii) grinding said ash and water to simultaneously grind and hydrate said quantity of ash with said quantity of water, said simultaneous grinding being carried out at atmospheric pressure and without addition of heat.
- 10 2. The process of claim 1 wherein said process additionally includes adding a drying agent after completion of said simultaneous grinding and hydrating.
- 15 3. The process of claim 2 wherein said drying agent is selected from the group consisting of combustible materials.
4. The process of claim 2 wherein said drying agent is selected from the group consisting of ash, limestone, coal and cellulose containing fuels.
- 20 5. The process of claim 2 wherein said water is present in an excess amount greater than the stoichiometric amount required to hydrate said ash.
6. The process of claim 2 wherein said water is present in an amount of at least 20% by weight of said dry ash.
- 25 7. The process of claim 6 wherein said simultaneous grinding is carried out in a mill having positive transport capacity.
- 30 8. The process of claim 2 wherein said water is present in an amount of at least 30% by weight of the dry ash.

9. The process of claim 8 wherein simultaneous grinding is carried out in a mill which does not have positive transport capacity.

10. The process of claim 7 wherein said process further comprises the step of mixing said simultaneously ground hydrated ash and water and said added drying agent in a mixer.

11. The process of claim 10 further including the step of pelletizing said ground hydrated ash and drying agent.

12. The process of claim 10 wherein said drying agent is present in an amount to absorb water from said mixture such that said mixed product will produce an agglomerate so that the calcium present in said agglomerate is suitable for use in the sulphation reaction at the surface area of such agglomerate and internally of said agglomerate.

13. The process of claim 12 wherein said agglomerate comprises a mixture of said ground hydrated ash and a combustible drying agent.

14. The process of claim 13 wherein said agglomerate of said simultaneously ground and hydrated ash and drying agent forms an agglomerate which is crumbly.

15. A process of using wet fine coal as a feedstock to a combustor comprising:

obtaining a supply of wet fine coal having excess water therewith,

obtaining a supply of ash,

simultaneously grinding a mixture comprising said wet fine coal and said ash to hydrate the said ash at atmospheric pressure and without addition of heat.

16. The process of claim 15 wherein said process additionally includes adding a drying agent after completion of said simultaneous grinding and hydrating.

5 17. The process of claim 16 wherein said drying agent is selected from the group consisting of combustible materials.

18. The process of claim 16 wherein said drying agent is selected from the group consisting of ash, limestone, coal and cellulose containing fuels.

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19. The process of claim 2 wherein water is present in said mixture of ash and coal in an excess amount greater than the stoichiometric amount required to hydrate said ash.

15 20. The process of claim 2 wherein said water is present in an amount of at least 20% by weight of said dry ash.

21. The process of claim 6 wherein said simultaneous grinding is carried out in a mill having positive transport capacity.

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22. The process of claim 15 wherein said water is present in an amount of at least 30% by weight of the dry ash.

25 23. The process of claim 15 wherein water is present in an amount of at least 33 1/3% by weight of dry ash.

24. The process of claim 15 wherein water is present in an amount of at least 50% by weight of dry ash.

30 25. The process of claim 15 wherein said mixture of water, coal and ash is pelletized after said grinding.

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26. The process of claim 16 wherein said mixture of water, coal, ash and drying agent is pelletized after adding said drying agent.

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